

Seat No.	
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SET- B

Total No. of Pages: 6

Ph.D. Entrance Examination (PET) - Winter 2026

Subject – Pharmacy

Day and Date:

Total Marks: 100

Time:

- Instructions:*
- i) All questions are compulsory
 - ii) Each question carries 2 marks
 - iii) Write the correct option in the box at right
 - iv) Use of non-programmable calculator is allowed

		Correct Option
Q.1)	Which of the following research approaches is focused on generating a theory from the data collected?	D
	A) Descriptive research	
	B) Experimental research	
	C) Ethnography	
Q.2)	Which research method is particularly useful for exploring new or complex topics?	B
	A) Experimental	
	B) Case Study	
	C) Survey	
Q.3)	In an experimental design, what term is used for the variable that is manipulated by the researcher?	C
	A) Control variable	
	B) Dependent variable	
	C) Independent variable	
Q.4)	Which of the following is a common method for collecting data in qualitative research?	D
	A) Surveys with closed-ended questions	
	B) Surveys with closed-ended questions	
	C) Large-scale statistical analyses	
Q.5)	Which type of question allows respondents to select one or more answers from given options?	B
	A) Open-ended question	
	B) Closed-ended question	
	C) Hypothetical question	
Q. 6)	“A systematic step-by-step procedure following logical process of reasoning” called...	D
	A) Experiment	
	B) Observation	
	C) Deduction	
	D) Scientific method	

Q.7)	“One of the methods of logical reasoning process” is called...		B
	A) Deduction	B) Induction	
	C) Research	D) Experiment	
Q. 8)	Facts or information's are analyzed and critical evaluation is made in		C
	A) Survey	B) Action research	
	C) Analytical research	D) Pilot study	
Q.9)	Converting a question into a Researchable problem is called ...		C
	A) Solution	B) Examination	
	C) Problem formulation	D) Problem Solving	
Q. 10)	Which of the following best describes a research hypothesis?		B
	A) A summary of previously published research	B) A testable statement predicting a relationship between variables	
	C) A statement that cannot be tested experimentally	D) A general description of the research topic	
Q.11)	Every research proposal, regardless of length should include two basic sections. They are.....		A
	A) Research question and research methodology	B) Research proposal and bibliography	
	C) Research method and schedule	D) Research question and bibliography	
Q. 12)	Qualitative and Quantitative Research are the classification of research on the basis of.....		D
	A) Use of the research	B) Time dimensions	
	C) Purpose of the research	D) Techniques used	
Q.13)	Which of the following is generally considered a secondary source?		B
	A) Original research article	B) Review article	
	C) Experimental laboratory report	D) Clinical trial report	
Q. 14)	Failure to acknowledge the borrowed material is called (Take and use of others as one's own)		D
	A) Acknowledgement	B) Foot note	
	C) Index	D) Plagiarism	
Q.15)	Which of the following is considered research misconduct?		A
	A) Fabrication, falsification, and plagiarism	B) Slow data collection	
	C) Writing a poor conclusion	D) Changing your research topic	
Q. 16)	Which of the following tests are parametric test?		A
	A) ANOVA	B) Mann-Whitney U test	
	C) Wilcoxon	D) Kruskal-Wallis	

Q.17)	A set of all possible data values for a subject under consideration is called		C
	A) descriptive statistics	B) a sample	
	C) a population	D) statistics	
Q. 18)	Which of the following is an application of Artificial Intelligence?		B
	A) It helps to exploit vulnerabilities to secure the firm	B) Language understanding and problem-solving (Text analytics and NLP)	
	C) Easy to create a website	D) It helps to deploy applications on the cloud	
Q.19)	Which of the following stage is known as 'blueprint' of a research?		A
	A) Research design	B) Development of Working Hypothesis	
	C) Formulating the Research Problem	D) Execution of the Project	
Q.20)	The method of selecting a few individuals from a larger group to serve as the foundation for estimating or predicting the prevalence of an unknown piece of knowledge, condition, or outcome in the larger group, it is known as.....		C
	A) Inferential statistics	B) Measures of central tendency	
	C) Sampling	D) Measures of association	
Q.21)	The most important role played by a good conclusion is		A
	A) It generates the aspects for future research	B) It does not summarise the research	
	C) it is not a blue-print of the research	D) It does not pave way for new research	
Q. 22)	Which software is used to detect plagiarism in academic documents?		D
	A) SPSS	B) EndNote	
	C) Excel	D) Turnitin	
Q.23)	What is the primary purpose of research ethics?		B
	A) To make research faster	B) To protect the rights and welfare of participants	
	C) To increase funding opportunities	D) To reduce the cost of experiments	
Q.24)	A hypothesis which is tested for possible rejection is known as		C
	A) Positive hypotheses	B) Absolute hypotheses	
	C) Null hypotheses	D) All of above	
Q.25)	The measure of central tendency indicates ...		B
	A) Measure of asymmetry	B) Measure of average	
	C) Measure of variables	D) None of the above	

Q.26)	Which of the following alkaloids are found as salts of meconic acid?		D
	A) Rauwolfia Alkaloid	B) Tropane Alkaloid	
	C) Ergot Alkaloid	D) Opium Alkaloid	
Q.27)	Which of the following is used to evaluate disinfectant?		C
	A) Widal test	B) VRDL test	
	C) Chick Martin test	D) None of these	
Q.28)	The main purpose of increasing viscosity of an ophthalmic preparation is to:		B
	A) Increase irritation	B) Increase residence time in eye	
	C) Reduce drug concentration	D) Prevent sterilization	
Q.29)	Which anemia is caused due to Microcytic, hypochromic red blood cells?		C
	A) Pernicious anemia	B) Aplastic anemia	
	C) Iron deficiency anemia	D) Hemolytic anemia	
Q.30)	Number of stereoisomers of 3-bromo-2-butanol are ...		B
	A) 2	B) 4	
	C) 6	D) 8	
Q.31)	Diels-Alder reaction is....		A
	A) Cyclo addition	B) Elimination	
	C) Nucleophilic addition	D) Electrophilic substitution	
Q.32)	A powder has a Carr's compressibility index in the range of 12-16. The flowability of the powder will be		C
	A) Fair	B) Excellent	
	C) Good	D) Very poor	
Q.33)	As per USP, the maximum concentration of benzalkonium chloride used as a preservative in parenteral formulations is ...		D
	A) 0.001%	B) 0.05%	
	C) 0.005%	D) 0.01%	
Q.34)	Which PDE 4 inhibitor is used in COPD?		B
	A) Montelukast	B) Theophylline	
	C) Cromoglicate	D) Omalizumab	
Q.35)	Hypsochromic shift refers to a shift of absorption maximum toward:		B
	A) Longer wavelength	B) Shorter wavelength	
	C) Lower frequency	D) Lower energy	
Q.36)	A drug whose solubility is 1 g/L in water, when given orally at a dose of 500 mg is absorbed upto 95% of administered dose. The drug belongs to which class according to the BCS classification?		C
	A) Class III	B) Class I	
	C) Class II	D) Class IV	

Q.37)	What is Primogel?		D
	A) Substituted HPMC for direct compression	B) Modified microcrystalline cellulose for direct compression	
	C) Hydro gelling polymer for gel formation	D) Modified starch for disintegration	
Q.38)	The D-value of a microorganism represents the		C
	A) Time required to kill all microorganisms	B) Temperature required for sterilization	
	C) Time required to reduce the microbial population by 90%	D) Number of microorganisms surviving sterilization	
Q.39)	Upon standing sometimes gel system shrinks a bit and little liquid is pressed out. What is this phenomenon known as?		B
	A) Oozing	B) Syneresis	
	C) Shrinking	D) Desolvation	
Q.40)	Which is the molecular target for the vinca alkaloids as anticancer agents?		D
	A) Tyrosine kinase	B) DNA	
	C) Ribosomes	D) Tubulin	
Q.41)	Which of the following beta blockers has been shown clinically to reduce mortality in patients of symptomatic heart failure?		B
	A) Atenolol	B) Carvedilol	
	C) Propranolol	D) Esmolol	
Q.42)	Anomocytic stomata, trichomes with collapsed cell and absence of calcium oxalate crystals are some of the microscopic features of which plant?		A
	A) Digitalis	B) Hyoscyamus	
	C) Mentha	D) Senna	
Q.43)	Polyamine polystyrene resins belong to which category of ion-exchange resins?		D
	A) Strongly Acidic Cation Exchange Resins	B) Strongly Basic Anion Exchange Resins	
	C) Weakly Acidic Cation Exchange Resins	D) Weakly Basic Anion Exchange Resins	
Q.44)	Which one is an example of a bulk property detector used in HPLC?		C
	A) Fluorescence detector	B) Photo diode array detector	
	C) Refractive index detector	D) UV detector	
Q.45)	Which assay is used to evaluate the immunomodulatory activity of plant extracts?		A
	A) DTH assay	B) Edema assay	
	C) Silver nitrate model	D) Carageenan assay	

Q.46)	Vivoxx (Rofecoxib) was withdrawn from the market because of....		A
	A) Cardiac toxicity	B) Hepatotoxicity	
	C) Genotoxicity	D) Nephrotoxicity	
Q.47)	Macrolides act on.....		C
	A) 30s ribosome	B) 60s ribosome	
	C) 50s ribosome	D) All of above	
Q.48)	Which granulation method is most suitable for a drug that is sensitive to moisture and heat?		B
	A) Wet granulation	B) Dry granulation	
	C) Aqueous granulation	D) Steam granulation	
Q.49)	To prevent the sticking of granules between the wall of die and tablet, we should use...		A
	A) Lubricant	B) Antiadherent	
	C) Glidants	D) Disintegrant	
Q.50)	Which of the antineoplastic agent is metabolized by Xanthine oxidase?		D
	A) Chlorambucil	B) Vincristine	
	C) 6-Thioguanine	D) 6-mercaptopurine	